Earth-Friendly Gardening & Landscaping

The GreenMan

The Return of Brood X

Unless *you* have been living underground recently, you must already know that periodical cicadas are about to make a dramatic and noisy return to our area after quietly living underground for 17 years.

Oh sure, we have our share of cicadas each year, whose shrill mating calls are loud enough to drown out most polite conversation, but those large blackish-green individuals, often called "Dog Day" cicadas, belong to a different genus from our *septendecimial* friends. They only live for several years and appear each year, and are therefore not periodical. They also arrive in decidedly smaller numbers.

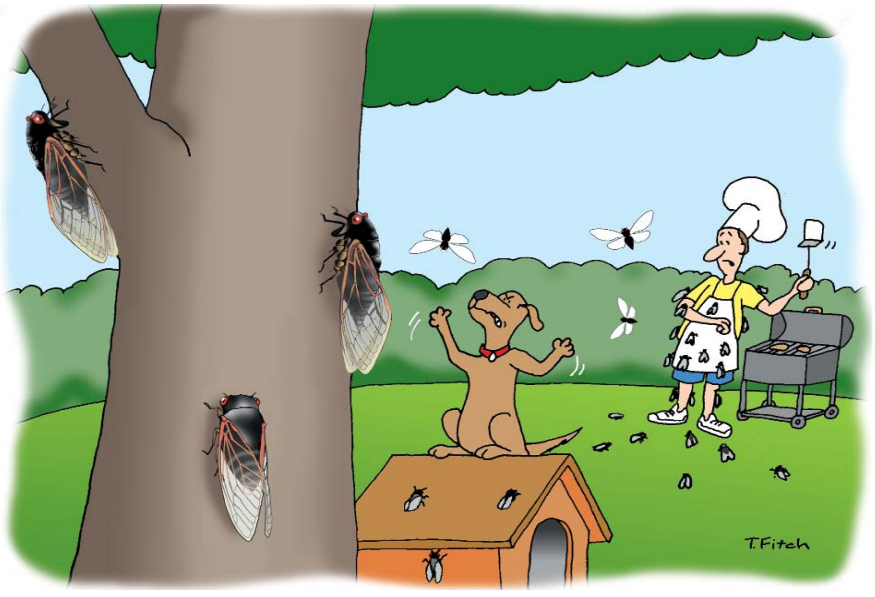
Speaking of numbers: if you've heard various figures mentioned about how many cicadas to expect, usually calculated at 100,000 to one million per acre, you should know that anywhere from 30 to 300 billion red-eyed critters may be found crawling, flopping, flying, and careening — *and just through Montgomery County alone!* For the overall region, the numbers expand into the realm of scientific notation.

These periodical cicadas belong to a group known as *Brood X*, a rather formidable designation with a science fiction flare which actually represents the Roman numeral *ten*, and is presumably not related to *Gen-X*. Actually, there are several different broods in our region, including a 13-year cicada just south of us, but Brood X is the largest and most impressive.

The extraordinary, some might say disgusting, number of insects is actually the key to their ongoing survival. Cicadas lack any form of defensive mechanism. They cannot bite, sting, exude noxious substances or odors, or lash out with claws. They fly poorly, usually into stationary objects, and seldom away from predators. Moreover, while some insects ward off predation with bad flavors or toxicity, cicadas actually taste good (or so we are told — *see below*).

Cicadas survive by existing in such large numbers that predators cannot possibly eat all of them, and many will essentially get tired of eating them. Free popcorn shrimp may sound like a good idea, until you've eaten nothing else for a solid week. One cautionary note: veterinarians have been warning clients that dogs and cats are generally cicada fanciers, but ingesting too many of them can lead to some decidedly undesirable digestive issues.

However, apart from filling the skies and trees with their lawnmower-loud mating calls, cicadas are generally innocent invaders. Periodical cicadas spend their larval stage about two to three feet underground, where they innocuously suck sap from tree roots. They will undergo five instars or growth periods during their slow maturity, leading to the spring of their 17th year and their emergence from



one-inch round holes in lawns and around trees. Incidently, on a positive note, these exit tunnels are actually a good, free source of aeration for lawns and gardens.

After emerging, the cicada nymph will climb the first vertical surface available, like a tree or fence post, attach itself, and molt, shedding its familiar brown scarab of a skin to become a klutzy winged adult. Parents should be forewarned that children are often obsessed with the notion of collecting as many exoskeletons as possible. Keep an eye on them as well as on your pets.

For the next four to six weeks, adults will modestly munch on bits of leaves, although they will cause no noticeable damage. During the day, males will begin to drone out their mating call by vibrating a membrane under their wings, generating a noise up to 90 decibels loud.

After a simple civil ceremony, receptive — and tone-deaf — females will use a reproductive appendage called an *ovipositor* to create a lengthwise slit in small branches, into which she will deposit up to 600 fertilized eggs.

Eggs will hatch after about six weeks, and the tiny larvae will drop to the ground in true cicada fashion, only to tunnel downward to a convenient root system and begin feeding, waiting for another spring 17 years later.

Naturally, people have already started calling local government offices wanting to know what action is going to be taken to address the imminent red-eyed menace. The answer: none. Adult cicadas carry no diseases, pose no health threat whatsoever, and cause no property damage. Other than concerns regarding constipated puppies or being clobbered in the eye by a clumsy aerialist, nothing needs to be done about them — and it will all be over by mid-June, anyway.

On the other hand, female cicadas can cause minor damage to twig tips as a result of making numerous ovipositor slits. In some cases, you may note dead or withered leaves, or even broken branch tips. This process is called "flagging," and is really little more than alight, natural pruning, from which trees and shrubs will quickly recover.

With mature trees, there is nothing that can be done to prevent flagging. Pesticides will be dangerous and ineffective, and spraying horticultural oil will simply make cicadas slick and shiny.

The only reason to take action concerns young or newly planted trees, especially smaller "whips" or seedlings where the apical leader, the central or main stem, is the pencil thickness favored by females for egg-laying.

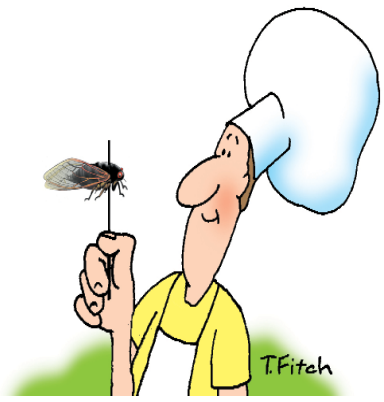
In these cases, as well as with very special young specimen trees, homeowners might want to consider covering the entire tree, where feasible, using garden netting, such as bird or mosquito netting. The mesh should completely cover the tree to prevent females from lighting and depositing eggs, and should be applied now through the middle of June.

Please note that it unadvisable, even potentially harmful, to use plastic or cheesecloth to protect small trees. Solar-heated plastic can generate enormous amounts of heat and can scald and kill the plant. Cheesecloth, burlap, and similar coverings can lead to increased heat and humidity, encouraging fungal and insect disease.

Beyond protecting young trees, there is nothing that can be done. Periodical cicadas have survived glaciers, meteor impacts, and heavy-footed dinosaurs. They will no doubt be surprised to find a lot more housing, parking lots, and pavement overhead, with perhaps 12 percent of them trying to emerge from beneath a neighborhood Starbucks. Others will encounter the rapacious cleats of the 1.2 million local children who play soccer each weekend. But they will survive.

There is but one potential threat to cicadas left: the insectivorous gourmet. Perhaps inspired by the thought that "if you can't beat 'em, eat 'em," Jenna Jadin and fellow *Cicadamaniacs* (entomology professionals) at the University of Maryland have published a rather complete cookbook of cicada recipes, including banana cicada bread, Maryland cicadas, and chocolate-chip chirpers. In addition, other local area chefs have announced their own culinary creations for soft-shelled cicada, and much more.

It's going to be a long six weeks!



The GreenMan Show is produced for County Cable Montgomery by the Department of Environmental Protection (DEP) and the Office of Public Information. It airs daily on Cable Channel 6 and can also be viewed on the Internet. For a complete schedule and online access, visit **www.greenmanshow.com.**

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